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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,917	02/25/2005	Steven Wantling	B22-2522.US	1123
33249 7590 09/26/2007 HEXION SPECIALTY CHEMICALS, INC. 1600 SMITH STREET, P.O. BOX 4500 HOUSTON, TX 77210-4500			EXAMINER METZMAIER, DANIEL S	
			ART UNIT 1712	PAPER NUMBER
			MAIL DATE 09/26/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,917	<b>Applicant(s)</b> WANTLING ET AL.	
	<b>Examiner</b> Daniel S. Metzmaier	<b>Art Unit</b> 1712	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 Feb; 6 & 13 April; and 26 Aug. 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                                             | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Detailed Action</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

Claims 1-23 are pending.

### ***Information Disclosure Statement***

1. (1) IDS filed 25 Feb. 2005 (1 pages); (2) IDS filed 05 April 2005 (4 pages); (3) IDS filed 13 April 2005 (2 page); and IDS filed 26 August 2005 (1 page).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In step (b), the term "missing" should be "mixing".

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai, US 5,120,355, in view of Luongo, US 6,251,979.

Imai (abstract; column 1, lines 38 et seq ; column 3, lines 54 et seq ; examples and claims) disclose water-repellent compositions for gypsum products employing wax, alkyl phenol hydrocarbon resin, polynaphthalenesulfonates and an polyacrylates.

Imai differs from the claims in the further incorporation of starch and the characterization of the treatment of gypsum rather than lignocellulosic composite products.

Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products.  
discloses making wallboard.

Luongo (column 11, lines 39-48) discloses perlite containing water-repellent compositions as wax emulsions to impart water-repellency to the gypsum product.  
Luongo (column 12, lines 31 et seq) discloses employing starch and borate to impart adhesive and bonding properties to the perlite additives.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the wax emulsions of '355 on lignocellulosic composite products. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ starch in the '355 emulsions as a conventional additive in the prior art emulsions as a viscosifier and binder.

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-32 and of copending Application No. 10/525,912, in view of Song, 6,010,596. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims differ only in their intended use. Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products and gypsum.

Song teaches (see at least claims) lignocellulosic composite products and gypsum products include the same product materials. It would have been obvious to

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one of ordinary skilled in the art at the time of applicants' invention to employ the wax emulsions of '912 on gypsum products.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No. 10/528,471, in view of Song, 6,010,596 and Luongo, US 6,251,979. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims differ only in their intended use. Furthermore, see copending claims 15-17. Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products and gypsum.

Song teaches (see at least claims) lignocellulosic composite products and gypsum products include the same product materials. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the wax emulsions of '471 on gypsum products.

To the extent the copending claims lack a disclosure of complexed starch, Luongo (column 11, lines 39-48) discloses perlite containing water-repellent compositions as wax emulsions to impart water-repellency to the gypsum product. Luongo (column 12, lines 31 et seq) discloses employing starch and borate to impart adhesive and bonding properties to the perlite additives.

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It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ complexed starch in the '471 emulsions as a conventional additive in the prior art emulsions as a viscosifier and binder.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-40 of copending Application No. 10/541,804, in view of Luongo, US 6,251,979. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims differ in the further incorporation of starch. Wax emulsions are notoriously well known for imparting water-resistance to a number of substrates including lignocellulosic composite products.

The claims are generic to the use of polynaphthalenesulfonic acid and an alkali metal hydroxide. Both are specifically set forth (see at least Tables 1 and 2) as included in the generically claimed compositions and methods.

To the extent the copending claims lack a disclosure of complexed starch, Luongo (column 11, lines 39-48) discloses perlite containing water-repellent compositions as wax emulsions to impart water-repellency to the gypsum product. Luongo (column 12, lines 31 et seq) discloses employing starch and borate to impart adhesive and bonding properties to the perlite additives.

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It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ complexed starch in the '471 emulsions as a conventional additive in the prior art emulsions as a viscosifier and binder.

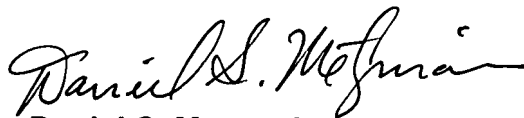
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**Daniel S. Metzmaier**  
**Primary Examiner**  
**Art Unit 1712**

DSM